Research on a 3-D visualized strata model virtual reality system of land subsidence in Suzhou-Wuxi-Changzhou area

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\textbf{Abstract} Due to the requirements of land subsidence research in the Suzhou-Wuxi-Changzhou area, a three dimensional land subsidence virtual reality system was developed based on virtual reality technology. This paper gives a general introduction to the framework, method and functions of the 3-D land subsidence virtual reality system. This system can simulate the 3-D geological structure, the groundwater flow field, the dynamic process of land subsidence, and the sequence induced by the occurrence of land subsidence. The basic metadata for simulation is derived from the land subsidence numerical model, field data and literature data. It can be concluded that this virtual system is an effective visualization platform for studying the mechanism, process and forecasting of land subsidence in the Suzhou-Wuxi-Changzhou area.

\textbf{Key words} land subsidence; virtual reality; geological structure; Suzhou-Wuxi-Changzhou area, China